

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
3 October 2002 (03.10.2002)

PCT

(10) International Publication Number
WO 02/078339 A1

(51) International Patent Classification⁷: H04N 7/16, 5/445

(74) Agent: UITTENBOGAARD, Frank; Internationaal Octrooibureau B.V., Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

(21) International Application Number: PCT/IB02/00969

(81) Designated States (*national*): CN, JP, KR.

(25) Filing Language: English

(84) Designated States (*regional*): European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR).

(26) Publication Language: English

Published:

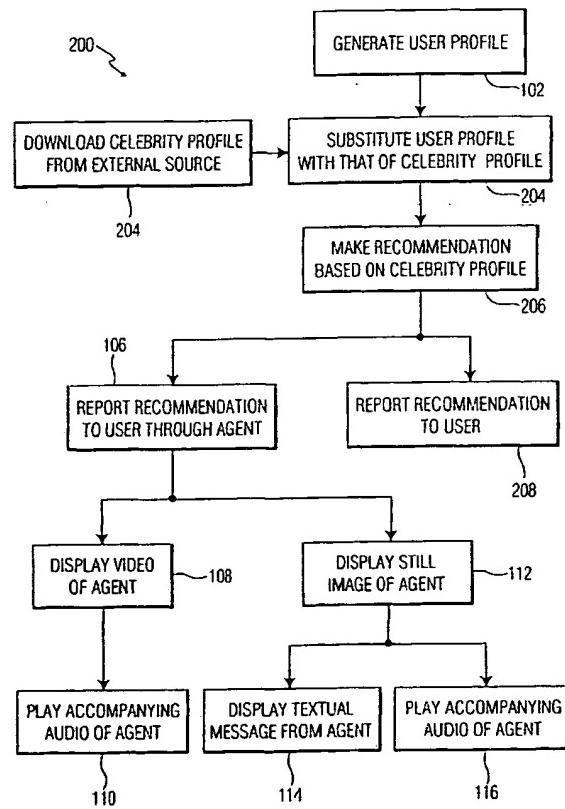
- *with international search report*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

(71) Applicant: KONINKLIJKE PHILIPS ELECTRONICS N.V. [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(72) Inventor: ZIMMERMAN, John; Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

(54) Title: METHOD AND APPARATUS FOR RECOMMENDING TELEVISION PROGRAMMING THROUGH A CELEBRITY OR USING A CELEBRITY PROFILE



(57) **Abstract:** A method for making a recommendation in a lifestyle recommendation machine. The method includes the steps of: generating a user profile based on explicit and/or implicit directions of a user; making a recommendation for an item, service, and/or event based on the user profile; and reporting the recommendation to the user through an agent, where the agent is preferably a celebrity. In another embodiment the method includes the steps of: substituting a user profile based on explicit and/or implicit directions of a user with a celebrity profile of a celebrity; making a recommendation for an item, service, and/or event based on the celebrity profile; and reporting the recommendation to the user.

WO 02/078339 A1

Method and apparatus for recommending television programming through a celebrity or using a celebrity profile

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates generally to devices which employ a user profile (referred to hereinafter as a “lifestyle recommendation device”) and, more particularly, to 5 television programming devices for learning a user’s profile through the user’s recording and viewing habits in which the user’s profile can be replaced with a celebrity’s profile or in which a celebrity can deliver the recommendation of the lifestyle recommender to the user.

2. Prior Art

10 Rapid growth in communication technology has lead to an increase in the number of celebrities. At the same time this growth has been matched by an increase in content. More ways to communicate have lead to more content, and more content means more celebrities. More content also makes it more difficult for people to find something to watch or listen to. Those in the art have addressed this problem through personalization.
15 They have and continue to develop television programming devices that find and recommend content based on user profiles.

Currently many devices, not just those that recommend television 20 programming, use personal profiles. For instance a lifestyle recommendation device can also be used in the areas of music, movies, and fashion. These lifestyle recommendation devices allow users to customize the environment or in some cases the devices can even learn what 25 users like by observing the user’s behavior. One such product is used to learn and record television programming based on the user’s viewing and recording habits. From the user’s viewing and recording habits, the device learns a profile of the user from which the device automatically records and/or recommends television programming it thinks the user will like.

Lifestyle recommendation devices build a user’s profile in three ways. Firstly, 25 the user can explicitly enter what his or hers likes and dislikes are. Secondly, a user can enter feedback regarding a specific event, item, or content, such as a television movie. Thirdly, the device can implicitly build a user’s profile based on the user’s observed behavior.

Typically, such as is the case in a television programming recommendation device, the device will recommend a particular television program with a number associated with the program. For instance, depending upon how well a particular television movie fits within the user profile, the device may assign it an 8 (out of a possible 10), indicating to the 5 user that, based on the user's explicit and/or implicit behavior, the movie should be favorable.

Traditionally people have turned to celebrities to help them find content. Music, movie, and TV stars appear in magazines and on talk shows where they promote their latest projects. Popular disc and video jockeys recommend the music they play. Celebrity 10 critics rate movies, music, and TV shows. Even *TV Guide*, a magazine that lists TV shows for the following week, sells itself to readers through the celebrities that appear on the cover. Celebrities are the content, and celebrities sell the content.

In his 1961 book *The Image*, Daniel Boorstin defined celebrities as people well known for their "well-knownness". This definition works well, because it captures the 15 most important aspect of being a celebrity, not being forgotten. However, it falls short because it limits celebrities to people. Instead, for the purpose of this disclosure, celebrities are well known characters and in addition to real life people can also include fictional and synthetic celebrities.

Real celebrities appear more like characters than like people. Consider Tom 20 Cruise and Tom Hanks for example. These popular celebrities command high salaries because they guarantee a strong box office draw, and that success comes from the consistent delivery of a character. Tom Cruise typically plays a character which is "the best." He is the best spy, the best fighter pilot, the best brother, or the best bartender. Tom Hanks is a "regular guy" who encounters extraordinary circumstances. He is a regular guy who falls in 25 love with a mermaid, a regular prison guard who witnesses miracles, or a regular guy of lower intelligence who leads an incredible life. When people decide to go to a Tom Hanks or a Tom Cruise movie, they know what character to expect.

The fictional character James Bond also works at this level. He is just as much a celebrity as the actors who have played him. When people say they are going to a 30 Tom Cruise movie, it has the same value as saying they are going to a James Bond movie.

From these examples it is easy to see celebrities as products, however the fact that they are part of a story makes them more desirable. Simba, the heroic, animated lion from Disney's *The Lion King*, offers a good example of a "character" celebrity. This movie generated billions of dollars in film and video release and merchandise. People did not want

to own just any stuffed lion, they wanted to own Simba. They wanted to participate in the story, and that is what makes celebrities characters and not just products.

Finally there is the synthetic celebrity, such as Lara Croft, the main character in the Tomb Raider video game. She appears on the cover of magazines, has web sites devoted to her, and her fans write fictional accounts of her adventures. She is not a person, 5 but she is a well-known character, a synthetic celebrity.

The lifestyle recommendation devices of the prior art do not provide a user with the alternative of replacing the user profile with that of a celebrity's profile, real, 10 fictional, or synthetic. Furthermore, the lifestyle recommendation devices of the prior art can only recommend an item, event, or programming through the use of a weighted number which does not always catch the attention of a user. In view of the prior art, there is a need for a lifestyle recommendation device, which resolves these and other problems with the prior art. In summary, there is a need in the art for a lifestyle recommendation device which takes advantage of the importance of celebrities in our society.

15

SUMMARY OF THE INVENTION

Therefore it is an object of the present invention to provide a lifestyle recommendation device and method for its operation which addresses the problems of the prior art.

20

People create celebrities because they fulfill a human need for relationships. These are safe, one-way, relationships, where people can select and dump celebrities without any fear of being dumped. Celebrities offer opportunities for many types of relationships, but with respect to a lifestyle recommendation device. It is important to consider identification and common experience.

25

People form relationships with celebrities they identify with. They attach their identity to the identity of the star with the hope of rising as the celebrity rises. This phenomenon can easily be observed in rock music fans. Fans want to be identified as having liked a band before they struck it rich. That way they can be identified as having "risen" with the band's fame. It can also be seen in sports fans who feel they have won when the team 30 they cheer for wins.

People begin and grow these relationships by allowing celebrities to influence them. A great deal of work has been done in the medical community on the effectiveness of celebrity influence based on dissemination of information. There is clear evidence that people take actions based on celebrities. In a study on Magic Johnson and HIV information,

researchers discovered people were more willing to accept the advice from a celebrity, Magic Johnson, than the advice of experts.

Celebrities not only help form relationships between themselves and people; they also form relationships among the people who follow the celebrity. Celebrities offer a common experience people share with each other. "Instead of gossiping over the back fence about our neighbor, we now gossip with strangers about other strangers [celebrities] all over the world." As the world fractionalizes more and more with communication options, celebrities offer a common point of reference.

Common experience with celebrities allows people to communicate. For example: when a person states that they like Tom Cruise and hate Pamela Anderson, they are communicating a lot about themselves to an audience that is familiar with those celebrities. They are defining themselves by the characters those celebrities play.

A journalist wrote what she considered an honest yet unflattering article about a pop band. She received numerous pieces of "hate mail". She did not know why people were more interested in defending this group than in hearing the truth. People went out of their way to protect their relationship because they were really protecting themselves.

Accordingly, a first embodiment of a method for making a recommendation in a lifestyle recommendation machine is provided. The method comprises the steps of: generating a user profile based on explicit and/or implicit directions of a user; making a recommendation for an item, service, and/or event based on the user profile; and reporting the recommendation to the user through an agent.

Preferably, the recommendation is a recommendation of television programming and the agent is a celebrity. More preferably, the reporting step comprises displaying a video of the agent and playing accompanying audio which announces the recommendation. Alternatively, the reporting step comprises displaying a still image of the agent and either displaying a textual message which announces the recommendation or playing accompanying audio which announces the recommendation.

Also provided is a first embodiment of a lifestyle recommendation device. The device comprises: means for generating a user profile based on explicit and/or implicit directions of a user; means for making a recommendation for an item, service, and/or event based on the user profile; and reporting means for reporting the recommendation to the user through an agent. Preferably, the lifestyle recommendation device is a television programming storage device and the agent is a celebrity.

Still yet provided are a computer program product for carrying out and storing the method steps of the present invention and a program storage device for storing the same.

Still yet further provided is a second embodiment of a method for making a recommendation in a lifestyle recommendation machine. The method comprises the steps of:

- 5 substituting a user profile based on explicit and/or implicit directions of a user with a celebrity profile of a celebrity; making a recommendation for an item, service, and/or event based on the celebrity profile; and reporting the recommendation to the user. Preferably, the substituting step comprises downloading the celebrity profile from an external source.

- More preferably, the reporting step comprises reporting the recommendation
- 10 to the user through an agent, such as the celebrity. The celebrity preferably reports the recommendation by displaying a video of the celebrity and playing accompanying audio which announces the recommendation. Alternatively, the celebrity can report the recommendation by displaying a still image of the celebrity and either displaying a textual message which announces the recommendation or playing accompanying audio which
 - 15 announces the recommendation.

BRIEF DESCRIPTION OF THE DRAWINGS

- These and other features, aspects, and advantages of the apparatus and methods of the present invention will become better understood with regard to the following
- 20 description, appended claims, and accompanying drawings where:

Figure 1 illustrates a flow chart illustrating a first embodiment of the methods of the present invention.

Figure 2 illustrates a flow chart illustrating a second embodiment of the methods of the present invention.

- 25 Figure 3 illustrates a lifestyle recommendation apparatus useful in carrying out the methods of Figures 1 and 2.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

- Although this invention is applicable to numerous and various types of
- 30 lifestyle recommendation devices, it has been found particularly useful in the environment of television programming. Therefore, without limiting the applicability of the invention to television programming, the invention will be described in such environment.

Referring now to Figures 1 and 3, a first embodiment for making a recommendation in a lifestyle recommendation machine will be discussed where Figure 1

illustrates a method for making a recommendation in a lifestyle recommendation machine and Figure 3 illustrates a schematic illustration of the lifestyle recommendation machine for carrying out the method of Figure 1. The method being generally referred to by reference numeral 100, the machine by reference numeral 300.

5 At step 102, a user profile is generated in a user profile generation means 302 based on explicit and/or implicit directions of a user. Such means is well known in the art and include commercial devices such as TiVo® manufactured by Philips Electronics which makes recommendations regarding television programming. At step 104, a recommendation is made for an item, service, and/or event based on the user profile, such as a
10 recommendation for television programming. Means for making such a recommendation 304 are also well known in the art and also include the TiVo® device previously discussed.

Instead of reporting the recommendation to a user as a number as is done in the prior art, at step 106, the method and apparatus of the present invention reports the recommendation to the user through an agent. The agent is preferably a celebrity, which as
15 defined above can be real, fictional, and synthetic. However, a non-celebrity, such as a spouse, friend, or relative can also act as the agent who reports the recommendation to the user.

Preferably, the reporting step 106 is done by displaying a video of the agent on a monitor 306 while playing an accompanying audio on a speaker 308 which announces the
20 recommendation. Displaying the video of the agent and playing an accompanying audio announcement are shown in Figure 1 as steps 108 and 110, respectively. Alternatively, the reporting step 106 can be done by displaying a still image of the agent on the monitor 306 and either also displaying a textual message on the monitor 306 which announces the recommendation or playing accompanying audio on the speaker 308 which announces the
25 recommendation. Displaying the still image of the agent and an either displaying an accompanying textual message or playing an accompanying audio announcement are shown in Figure 1 as steps 112, 114, and 116, respectively. In the case of a television recommendation device, the monitor 306 is preferably a television monitor connected to the device and the speaker 308 is integral with the television monitor.

30 Those skilled in the art will appreciate that the first embodiment of the methods and apparatus of the present invention replace the mundane and meaningless reporting methods of the prior art with a reporting of the user's preferences through an agent such as a celebrity. People have the tradition of receiving content recommendations from celebrities, such as in commercials or talk show appearances. Presenting computer content

recruiters as celebrities fulfills a users' expectations. The celebrities are content; they live in the world of their own recommendations. By making recruiters celebrities, consumer electronics products can transform from content delivery devices into actual content.

5 Referring now to Figures 2 and 3, a second embodiment for making a recommendation in a lifestyle recommendation machine will be discussed where Figure 2 illustrates a method for making a recommendation in a lifestyle recommendation machine and Figure 3 illustrates the lifestyle recommendation machine for carrying out the method of Figure 2. The method being generally referred to by reference numeral 200, the machine by 10 reference numeral 300.

At step 102, as in the method of Figure 1, a user profile is generated by the user profile generation means 302. At step 202, the user profile is substituted with a celebrity profile of a celebrity, real, fictional, or synthetic. The celebrity profile is preferably downloaded at step 204 via a data link 310 to the means for making the recommendation 304 from a URL address or from another external source. However, celebrity profiles can also be stored internally on the means for making the recommendation 304 and can be chosen by the 15 user by way of a screen menu or other means known in the art.

At step 206 a recommendation is made by the means for making a recommendation 304 for an item, service, and/or event, such as a recommendation for television programming based on the celebrity profile. At step 208, the recommendation is 20 made to the user by any means known in the art, such as reporting a numerical grade to the user which reflects the likelihood that the user would approve of the recommendation.

Alternatively, the lifestyle recommendation device can report the recommendation to the user through steps 108-116 as discussed above with regard to Figure 25 1. Specifically, a video or still image of the celebrity can be displayed on the monitor 308 and either an accompanying audio message on the speaker 308 or a displayed textual message also on the monitor 306 can announce the recommendation of the celebrity.

Those skilled in the art will appreciate that the second embodiment of the methods and apparatus of the present invention replace recommendations based on a user's 30 profile with that of a celebrity's profile with whom the user may have a special relationship. Computer agents can have relationships with people that are better than real celebrities. The relationship can be safe, but it can be personalized to the individual. The celebrity can learn about the user and reflect that knowledge in the interactions. By keeping the core personality

of the celebrity the same, the content recommenders of the present invention can provide personal information while still creating a common experience for many users.

Finally, people trust celebrities. Celebrity computer agents might earn the same trust. And trust makes a recommendation device that people want to use.

5 The methods of the present invention are particularly suited to be carried out by a computer software program, such computer software program preferably containing modules corresponding to the individual steps of the method. Such software can of course be embodied in a computer-readable medium, such as an integrated chip or a peripheral device.

10 While there has been shown and described what is considered to be preferred embodiments of the invention, it will, of course, be understood that various modifications and changes in form or detail could readily be made without departing from the spirit of the invention. It is therefore intended that the invention be not limited to the exact forms described and illustrated, but should be construed to cover all modifications that may fall within the scope of the appended claims.

CLAIMS:

1. A method for making a recommendation in a lifestyle recommendation machine, the method comprising the steps of:
 - generating a user profile (102) based on explicit and/or implicit directions of a user;
 - making a recommendation (104) for an item, service, and/or event based on the user profile; and
 - reporting the recommendation (106) to the user through an agent.
2. The method of claim 1, wherein the recommendation is a recommendation of television programming.
3. The method of claim 1, wherein the agent is a celebrity.
4. The method of claim 1, wherein the reporting step comprises displaying a video of the agent (108) and playing accompanying audio (110) which announces the recommendation.
5. The method of claim 1, wherein the reporting step comprises displaying a still image of the agent (112).
6. The method of claim 5, wherein the reporting step further comprises displaying a textual message (114) which announces the recommendation.
7. The method of claim 5, wherein the reporting step further comprises playing accompanying audio (116) which announces the recommendation.
8. The method of claim 3, further comprising a step of substituting the user profile with a celebrity profile of the celebrity.

9. The method of claim 8, wherein the substituting step comprises downloading the celebrity profile (204) from an external source (310).

10. A lifestyle recommendation device comprising:

5 means for generating a user profile (302) based on explicit and/or implicit directions of a user;

means for making a recommendation (304) for an item, service, and/or event based on the user profile; and

reporting means (306, 308) for reporting the recommendation to the user

10 through an agent.

11. The device of claim 10, wherein the lifestyle recommendation device is a television programming storage device.

15 12. The device of claim 10, wherein the agent is a celebrity.

13. The device of claim 10, wherein the reporting means comprises means for displaying a video of the agent (306) and playing accompanying audio (308) which announces the recommendation.

20

14. The device of claim 10, wherein the reporting means comprises means for displaying a still image (306) of the agent.

15. The device of claim 14, wherein the reporting means further comprises means
25 for displaying a textual message (306) which announces the recommendation.

16. The device of claim 14, wherein the reporting means further comprises means for playing accompanying audio (308) which announces the recommendation.

30 17. A computer program product for making a recommendation in a lifestyle recommendation machine, the computer program product comprising:
computer readable program code means for generating a user profile based on explicit and/or implicit directions of a user;

computer readable program code means for generating making a recommendation for an item, service, and/or event based on the user profile; and

computer readable program code means for generating reporting the recommendation to the user through an agent.

1/3

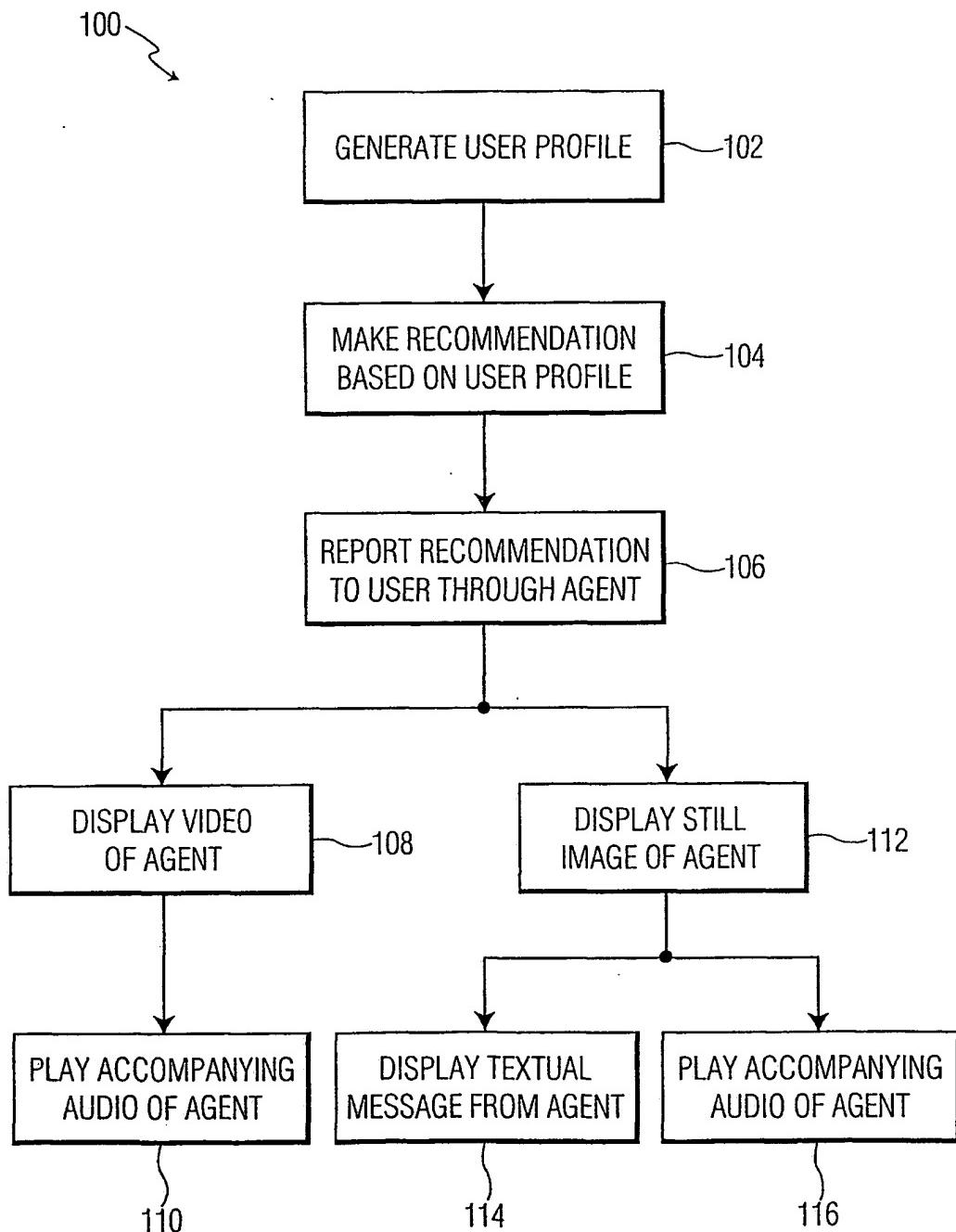


FIG. 1

2/3

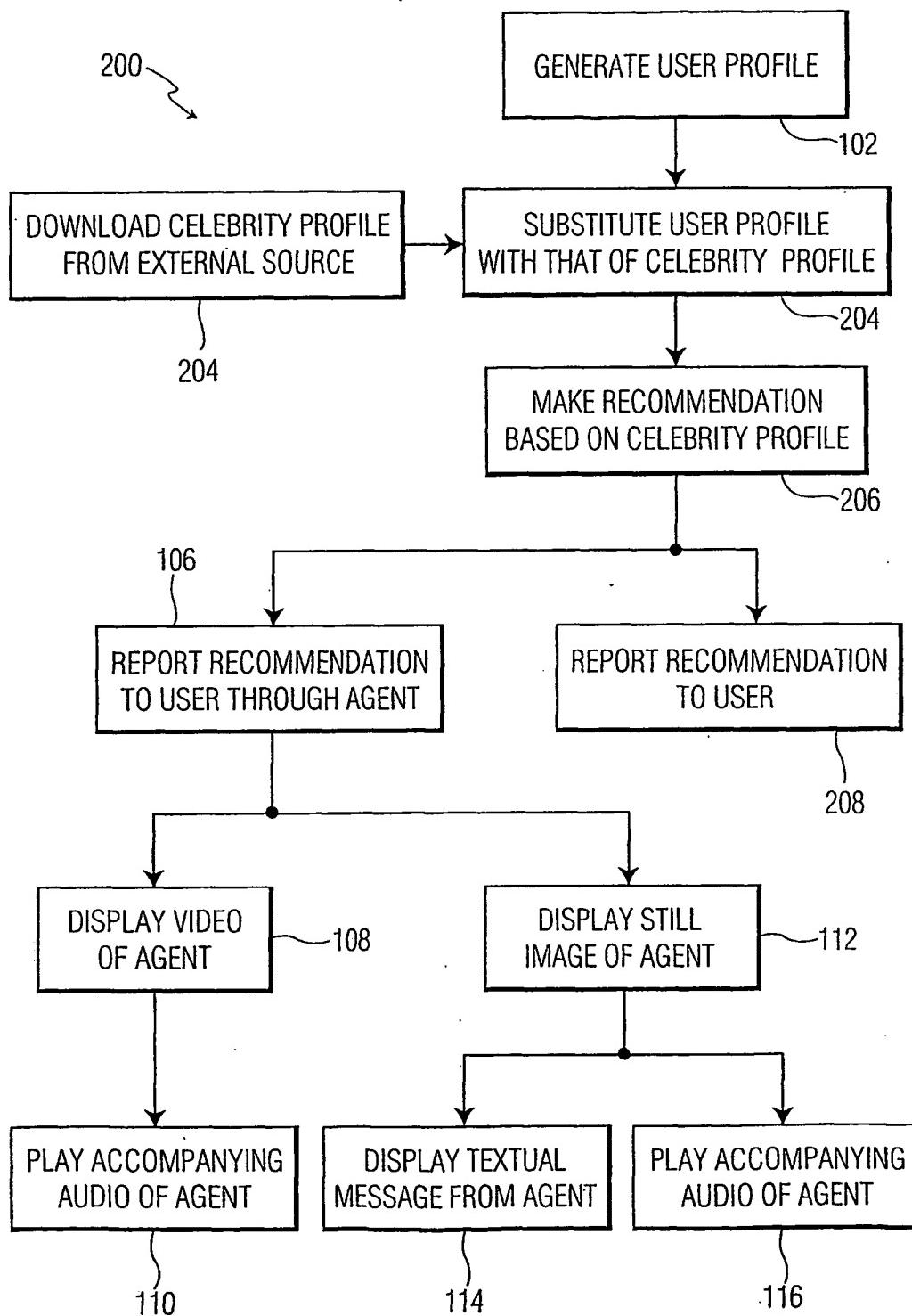


FIG. 2

3/3

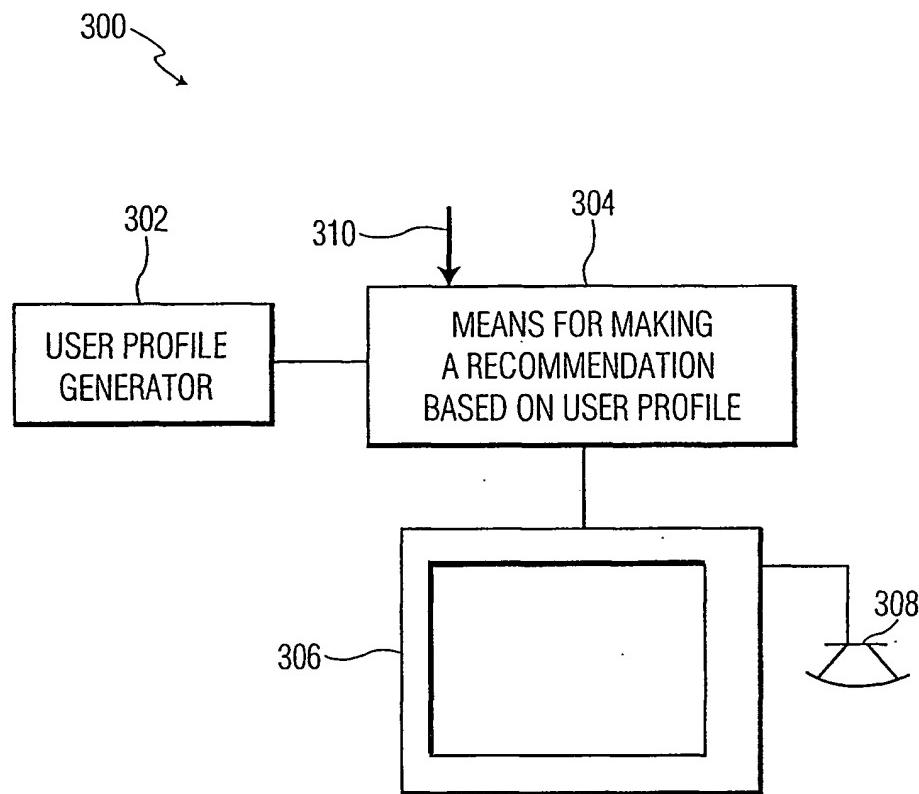


FIG. 3

INTERNATIONAL SEARCH REPORT

International Application No

PCT/IB 02/00969

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 H04N7/16 H04N5/445

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 IPC 7 H04N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	NYGREN K ET AL: "An Agent System For Media On Demand Services" PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON THE PRACTICAL APPLICATION OF INTELLIGENT AGENTS AND MULTI-AGENT TECHNOLOGY, XX, XX, 22 April 1996 (1996-04-22), pages 437-454, XP002086093	1,2,10, 11,17
Y	page 443, paragraph 2.3 page 445, paragraph 3 – paragraph 3.1	3-5,8, 12-14
Y	US 6 088 722 A (HERZ FREDERICK ET AL) 11 July 2000 (2000-07-11) column 50, line 39 – line 47	3,8,12
		-/-

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

° Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

Date of the actual completion of the international search

28 August 2002

Date of mailing of the international search report

05/09/2002

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
 NL - 2280 HV Rijswijk
 Tel: (+31-70) 340-2040, Tx. 31 651 epo nl,
 Fax: (+31-70) 340-3016

Authorized officer

Sindic, G

INTERNATIONAL SEARCH REPORT

International Application No
PCT/IB 02/00969

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5 657 462 A (MILLER MITCHELL SCOTT ET AL) 12 August 1997 (1997-08-12) column 7, line 39 - line 45 -----	4,13
A		7,16
Y	SHETH B D: "A Learning Approach to Personalized Information Filtering" MASTER THESIS, February 1994 (1994-02), XP002178871 page 38; figure 4.4 -----	5,14

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IB 02/00969

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
US 6088722	A	11-07-2000	US	5758257 A		26-05-1998
			AU	703247 B2		25-03-1999
			AU	4410396 A		19-06-1996
			CA	2207868 A1		06-06-1996
			EP	0796538 A2		24-09-1997
			US	6020883 A		01-02-2000
			WO	9617467 A2		06-06-1996
			US	5734720 A		31-03-1998
			US	5754938 A		19-05-1998
			US	5754939 A		19-05-1998
			US	5835087 A		10-11-1998
			US	6029195 A		22-02-2000
US 5657462	A	12-08-1997	AU	1258195 A		06-06-1995
			WO	9514268 A1		26-05-1995